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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,842	07/25/2003	Aaron Raines	019469.0234	2646
45507	7590	07/06/2005	EXAMINER	
BAKER BOTTS LLP 2001 ROSS AVENUE 6TH FLOOR DALLAS, TX 75201			BROUSSARD, COREY M	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/627,842	Applicant(s) RAINES ET AL.	
	Examiner Corey M. Broussard	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-18 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-18 and 20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9, 10, 14, 15, 16-18, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Busch (PN 5,510,806) in view of Rude (PN 6,470,532). With respect to claim 9, Busch teaches a system for displaying an image at a display unit comprising: a hinge member (34) coupled to the imaging mirror (32) and a video source coupled to the display unit (10) to transmit the image to the display unit for reflection by a fold mirror (50) coupled to the housing toward the imaging mirror. Busch lacks a friction hinge assembly with varying friction according to the position of the hinge member. Rude teaches a longitudinal pin portion (13) coupled to the mounting base (15), the pin portion being generally circular in cross-section with at least one open section (21) defined by a first and second corners proximate an outer edge of the pin portion (see Fig. 2); a hinge member (2) comprising an intermediate portion (an intermediate portion of 9) positioned substantially around the pin portion, the hinge member further comprising a planar support portion (25) and a planar mounting portion (11); and wherein the pin portion is configured to apply a friction caused by contact of the first corner of the pin portion with the support portion (25) of the hinge member; wherein the

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hinge member is configured to rotate about the pin portion from a first position to a second position without the friction because the support portion is not in contact with the first corner or a surface of the pin portion (see Fig. 11 teaching where a portion of the rotation of the hinge is without the friction claimed); wherein the hinge member is configured to rotate about the pin portion from the second position to a third position with the friction because the support portion is in contact with the first corner (see Fig. 4 teaching where a portion of the rotation of the hinge is with the friction claimed). It would have been obvious to a person of ordinary skill in the art to combine the display system of Busch with the hinge assembly of Rude to obtain a mirrored LCD projection display on a hinge that provides controlled rotation and angular positioning.

3. With respect to claim 10, Rude teaches wherein a distance between the first and second corners determines an amount of rotation required to move from the first position to the second position (see Fig. 11, the distance between the corners inherently determines the amount of rotation needed for the first corner to come in contact with and cause friction with the support member).

4. With respect to claim 14, Busch teaches that a liquid crystal display is used to project the image onto the fold mirror for reflection toward the imaging mirror (51 column 4 line 16).

5. With respect to claim 15, the method of rotating an imaging mirror (32) of a display unit (10) with a hinge assembly (34) is inherent in the structure of Busch. Busch lacks a friction hinge assembly with varying friction according to the position of the hinge member. The method of rotating an imaging mirror is inherent in the structure of Rude.

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Rude teaches providing a longitudinal pin portion (13) coupled to a mounting base (15), the pin portion being generally circular in cross-section with at least one open section (21) defined by a first and second corners proximate an outer edge of the pin portion (see Fig. 2); providing a hinge member (2) comprising an intermediate portion (an intermediate portion of 9) positioned substantially around the pin portion, a planar support portion (25) and the mounting portion (11) being configured to extend away from the pin portion in a spaced relationship with respect to one another; rotating a hinge member about the longitudinal pin portion from a first position to a second position without friction caused by contact of the first corner of the pin portion or a surface of the pin portion with the support portion of the hinge member (see Fig. 11 teaching where a portion of the rotation of the hinge is without the friction claimed), wherein the mounting base is coupled to a housing of the display unit (5), wherein the hinge member is positioned substantially around the pin portion; and rotating the hinge member about the pin portion from the second position to a third position with the friction caused by the contact of the first corner with the support portion of the hinge member (see Fig. 4 teaching where a portion of the rotation of the hinge is with the friction claimed). It would have been obvious to a person of ordinary skill in the art to combine the display system of Busch with the hinge assembly of Rude to obtain a mirrored LCD projection display on a hinge that provides controlled rotation and angular positioning.

6. With respect to claim 16, Rude teaches wherein a distance between the first and second corners determines an amount of rotation required to move from the first position

to the second position (see Fig. 11, the distance between the corners inherently determines the amount of rotation needed for the first corner to come in contact with and cause friction with the support member).

7. With respect to claim 17 and 18, Busch teaches the imaging mirror (32) is in a recessed position within the housing when the hinge member (34) is in the first position (when the display panel is closed against the keyboard, see Fig. 1) and where the mirror is fully deployed in the third position (open as in Fig. 1).

8. With respect to claim 23, the method for displaying an image at a display unit is inherent in the structure of Busch and Rude, Busch teaches receiving an image from a video source and projecting the image onto a fold mirror (50) coupled to the housing and reflecting the image onto the imaging mirror (32). Busch lacks a rotating hinge member with variable friction. Rude teaches a longitudinal pin portion (13) coupled to a mounting base (15), the pin portion being generally circular in cross-section with at least one open section (21) defined by a first and second corners proximate an outer edge of the pin portion (see Fig. 2); a hinge member (2) comprising an intermediate portion (an intermediate portion of 9) positioned substantially around the pin portion, a planar support portion (25) and the mounting portion (11) being configured to extend away from the pin portion in a spaced relationship with respect to one another; rotating a hinge member about the longitudinal pin portion from a first position to a second position without friction caused by contact of the first corner of the pin portion or a surface of the pin portion with the support portion of the hinge member (see Fig. 11 teaching where a portion of the rotation of the hinge is without the friction claimed),

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wherein the mounting base is coupled to a housing of the display unit (5), wherein the hinge member is positioned substantially around the pin portion; and rotating the hinge member about the pin portion from the second position to a third position with the friction caused by the contact of the first corner with the support portion of the hinge member (see Fig. 4 teaching where a portion of the rotation of the hinge is with the friction claimed). It would have been obvious to a person of ordinary skill in the art to combine the display system of Busch with the hinge assembly of Rude to obtain a mirrored LCD projection display on a hinge that provides controlled rotation and angular positioning.

9. Claims 11 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Busch (PN 5,510,806) in view of Rude (PN 6,470,532) and Vickers (PN 4,630,333). With respect to claim 11, the device of Busch as modified by Rude applied to claim 9 above lacks an adjustment screw to control the friction of the hinge member and longitudinal pin. Vickers teaches where the hinge member (25) comprises a mounting portion (24) spaced apart from the support portion (26), and further comprising an adjustment screw (31) inserted through the mounting portion and the support portion to control the friction (column 3 lines 20-26). See also Rude col 4, 42-44 teaching that the wrap angle controls the friction. It would have been obvious to a person of ordinary skill in the art to combine the mirrored display and hinge of Busch as modified by Rude and the adjustable friction hinge of Vickers to obtain a hinged display with an adjustable variable friction hinge for fine tuning the operation of the hinge after manufacturing.

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10. With respect to claims 20-22, the method of Busch as modified by Rude applied to claim 15 above lacks using an adjustment screw to control the friction of the hinge member and longitudinal pin. Vickers teaches that the friction can be controlled with an adjustment screw (31) inserted through the mounting portion (24) and the support portion (26) where tightening the screw increases the friction by reducing the space between the support portion and the mounting portion, or where loosening the adjustment screw to decrease the friction by increasing the space between the support portion and the mounting portion (column 3 lines 20-26). See also Rude col 4, 42-44 teaching that the wrap angle controls the friction. It would have been obvious to a person of ordinary skill in the art to combine the mirrored display and hinge of Busch as modified by Rude and the adjustable friction hinge of Vickers to obtain a hinged display with an adjustable variable friction hinge for fine tuning the operation of the hinge after manufacturing.

11. Claims 12, 13, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Busch (PN 5,510,806) in view of Rude (PN 6,470,532) as applied to claims 9 and 23 above, and further in view of Ashihara et al. (PN 5,883,739). With respect to claim 12, 13, 24, and 25, the device and method of Busch as modified by Rude applied to claim 9 and 23 above lacks the video source comprising a camera unit of an auxiliary vision system of a vehicle or global positioning satellite system. Ashihara teaches a display system where the video source comprises an auxiliary vision system (6) of a vehicle and/or a global positioning system (column 6 lines 26-27). It would have been obvious to use the mirrored display with variable friction hinge of Busch as

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modified by Rude to view the video signal of the vision system of Ashihara for the benefit of a simple auxiliary vision system for a vehicle having a low cost of production.

Response to Arguments

12. Applicant's arguments with respect to claims 9-25 have been considered but are moot in view of the new grounds of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Collet et al. (PN 5,967,587) and N.S. Clement (PN 494,549) teaching of variable friction hinges having pins with corners.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey M. Broussard whose telephone number is 571 272 2799. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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 **ANATOLY VORTMAN
PRIMARY EXAMINER**